

SECTION I

PART F ADMISSION STANDARDS POLICY

1.00 Introduction

The Commission was directed by the Colorado General Assembly to develop admission standards for the public higher education institutions in Colorado. This admissions policy was adopted by the Commission in response to that directive and is scheduled for implementation beginning fall 1987. It establishes state-level admission standards for both first-time freshmen and transfer students at each of the Colorado baccalaureate public institutions. It also includes an implementation schedule and a technical appendix describing the computation method and the definition of terms used within the policy.

Applicants who meet the Commission's standards are not guaranteed admission to the institution. Individual institutions may make admission decisions based on other criteria as well, including high school curriculum, special talents, and experiences resulting in standards more rigorous than those specified by the Commission in this policy.

Each institution may admit students who do not meet these standards up to a number not to exceed 20 percent of the admitted pool of students. The purpose of this "window" is to provide the institution the flexibility to admit promising students who meet institutionally established criteria but not the Commission's numerical standards. Of particular interest to the Commission are minority students, students with special talents, and students with disabilities, including those with learning disabilities. In addition, there are a number of types of students explicitly exempted from the admission standards within this policy. Special students, students visiting from other campuses, and students with foreign transcripts are examples of a few types of students exempted.

The analytical data on which this policy is based, is fall 1985 admissions data provided by the institutions. As the database is expanded from the fall to the full year, the analytical basis for this policy may change, and changes in the standards may be proposed. The Commission will review the data annually to determine if changes in the standards and/or the implementation schedule are appropriate.

2.00 Statutory Basis

There are a number of sections of the law that are applicable to the establishment of the Commission's policy on admission standards. These are listed below.

23-1-108 (1) (e) Establish state policies that differentiate admission and program standards and that are consistent with institutional role and missions as described in statute and further defined in paragraph (c) of this subsection (1);

23-1-113 Commission directive -- admission standards for baccalaureate and graduate institutions of higher education.

(1) (a) The Commission shall commence immediately to establish and the governing boards shall implement academic admission standards for first-time freshmen and transfer students at all state-supported baccalaureate and graduate institutions of higher education in the state. The standards shall be established by the Commission, after consultation with the governing boards of institutions, and the first step of implementation shall be completed by the governing boards by the beginning of the fall term in 1986.

(b) The standards established shall use at least two of the following three criteria for first-time admitted freshmen students: Standardized test scores, high school grade point average, and high school class rank. The criteria established shall be consistent with the role and mission established for each state-supported institution of higher education. In lieu of such criteria, additional criteria may be used for up to twenty percent of the admitted freshmen. Students who meet the minimum criteria for admission shall not be guaranteed admission to the institution to which they have applied, but they shall be eligible for consideration.

(c) The standards established shall use college grade point average. In lieu of such criterion, additional criteria may be used for up to twenty percent of the admitted transfer students. The academic admission standards and policies established for transfer students shall be consistent with the student transfer agreements established by the Commission pursuant to section 23-1-108 (7).

(d) (I) No other admission standards shall be imposed by any agency or committee of the executive or legislative branch of state government.

(II) This paragraph (d) is repealed, effective June 30, 1988.

(2) The Commission shall make an annual report to the General Assembly detailing the specific admission requirements in the categories of students described in subsection (1) of this section at each campus and institution of higher education. Such reports shall be due not later than January 1 of each year, beginning January 1, 1986.

23-1-108 (1) (c) Determine the role and mission of each state-supported institution of higher education within statutory guidelines;

23-20-101 (1) (a) The Boulder campus of the University of Colorado shall be a comprehensive graduate research university with high admission standards.....

(b) The Denver campus of the University of Colorado shall be a comprehensive baccalaureate liberal arts and sciences institution with high admission standards.....

(c) The Colorado Springs Campus of the University of Colorado shall be a comprehensive baccalaureate liberal arts and sciences institution with selective admission standards.....

23-31-101 Colorado State University shall be a comprehensive graduate research university with high admission standards.....

23-40-101 The University of Northern Colorado shall be a general baccalaureate and specialized graduate research university with selective admission standards.....

23-41-105 The School of Mines shall be a specialized baccalaureate and graduate research institution with high admission standards....

23-51-101Adams State College, which shall be a general baccalaureate institution with moderately selective admission standards.

23-52-102Fort Lewis College, which shall be a general baccalaureate institution with moderately selective admission standards.

23-53-101Mesa State College, which shall be a general baccalaureate institution with moderately selective admission standards.

23-54-101Metropolitan State College, which shall be a comprehensive baccalaureate institution with modified open admission standards; except that non-traditional students, as defined by the Colorado Commission on Higher Education after consultation with the Board of Trustees of the Consortium of State Colleges, who are at least twenty years of age shall only have an admission requirement of a high school diploma, a GED high school equivalency certificate, or the equivalent thereof.

23-55-101University of Southern Colorado which shall be a general baccalaureate and polytechnic institution with moderately selective admission standards.

23-56-101 Western State College of Colorado shall be a general baccalaureate institution with moderately selective admission standards.

3.00 Goals for the Commission Admission Standards

In this policy, the Commission states its conviction that the level of academic rigor needs to be increased at most of the baccalaureate institutions in the state. The academic environment can be improved in part through the selection of students who are appropriately prepared academically and are equipped to make use of their higher education opportunity. But the policy is also a challenge to the institutions to increase the academic expectations and demands placed on its students in their collegiate experience. Institutions with open admission policies are challenged to play a role in increasing standards by equipping their potential transfer students in the basic skills in order that they may continue their education and effectively compete in more competitive academic programs.

Through the implementation of these policies, the Commission wishes:

- to assure entry into the higher education system for all motivated students and the ability to transfer among institutions based on academic performance;
- to raise the academic standards of most of the four-year institutions within the state;
- to provide diversity in the academic standards of baccalaureate programs, assuring access and challenge to students of diverse preparation and potential;
- to achieve an academic climate that contributes to the realization of student potential by providing challenges of high performance;

- to establish and reaffirm the principle that the opportunity to be admitted to college and to specific courses of study must be earned -- while assuring that the opportunity to enter the system is not denied;
- to set performance expectations with clarity and to communicate those expectations to prospective students;
- to encourage the use of transfer for students wishing or required to begin their collegiate experience at an institution in a lower tier;
- to monitor any redistribution of students which may result so that rates of change do not damage the educational environment or the financial stability of each institution;
- to recognize the state goal of diversity by establishing and monitoring statewide affirmative action policies; and
- to remove enrollment caps on institutions which meet the Commission's admission standards, up to the limits of the campus's physical facilities.

In addition, the implementation of admission standards will complete one of the major assignments of the General Assembly. With the adoption of standards and action on other major assignments such as the teacher education study, program discontinuance, graduate program differentiation, and master planning, the Commission will have addressed many issues of efficiency within the system. Beginning at this point and over the period of implementation of these projects, it is the Commission's intent to advocate a major investment by the state in the system.

4.00 First-Time Freshmen Standards

4.01 Background

The Commission has developed a single scale for evaluating the achievement records of first-time freshmen students. The scale incorporates measures of standardized test scores, high school class rank, and high school grade point average. The description of the development of the single scale approach follows:

- High school grade point average and class rank were collected and analyzed for fall 1985. Grade point average and class rank were found to be closely related and a correspondence was defined. It was used to create the Commission's High School Performance Index, with a mean and median of 50 and a standard deviation of 10.
- Similarly, standardized test scores from the ACT and SAT from the pool of applicants to Colorado public baccalaureate institutions of higher education were collected and analyzed for fall 1985 to create the Commission's Standardized

Test Index. This index has a mean and median of 50 and a standard deviation of 10.

- The Commission's Admissions Index was computed by adding the Commission's High School Performance Index and the Commission's Standardized Test Index. This creates a scale with a mean of 100. It is this scale that is used to define admission standards for first-time freshmen students.
- Each institution may admit students who do not meet these standards, but who meet other criteria, up to a number not to exceed 20 percent of the admitted pool of students. The purpose of this "window" is to provide the institution greater flexibility in recognizing promising students who do not meet these particular numerical standards, but who the institution believes will succeed. Of particular interest are minority students, students with special talents, and students with disabilities, including those with learning disabilities.
- First-time freshmen applicants, who meet the Commission admissions index, are not guaranteed admission to the institution. Individual institutions may make admission decisions based on other criteria as well, including high school curriculum, special talents, and experiences. Institutions are encouraged to select the more qualified applicants from those who meet the Commission standards.

The precise definition of terms and the description of the computational methods used to arrive at the Commission's Admissions Index for first-time freshmen can be found in the Technical Appendix.

4.02 Standards

This section presents the results of the Commission's analysis of the fall 1985 pool of first-time freshmen applicants to Colorado public colleges and universities. The statewide equivalence of high school grade point average (GPA) and class rank and the statewide distribution of these combined measures are presented first. The statewide distribution of standardized test scores and the equivalence between types of test scores is presented second. The last portion of this section presents the specific standards for each of the Colorado public colleges and universities.

4.02.01 High School GPA and High School Class Rank

Table I displays the relationship of grade point average (GPA) class rank, and the Commission's High School Performance Index. Table I illustrates, for example, that a student with a 2.5 GPA would rank between the 41st and 46th percentile in class rank. For this student, the Commission's High School Performance Index is 41. Table II shows that more than 84 percent of all applicants have a high school GPA of 2.5 or higher.

4.02.02 Standardized Test Scores

Table I also displays the relationship of ACT test scores, SAT test scores, and the Commission's Standardized Test Index. As an example, a student scoring 20 on the New ACT test would be expected to score between 910 and 930 on the New SAT test. This student would receive a 42 on the Commission's Standardized Test Index. Table II shows that 72 percent of all applicants have an ACT score of 20 or higher.

4.02.03 Commission's Admission Standards Index

The Commission's Admission Standards Index Score for any student is the sum of the Commission's High School Performance Index and the Commission's Standardized Test Index. This overall index score will have 100 as the mean for the applicant pool. Table III displays the Commission's Admission Index Score. To illustrate the use of this table, a student with a high school class rank of 80 who received a 25 on the ACT test would have an index score of 105 and would be in the upper 41.7 percent of the applicant pool. There were an average of 13,321 applicants in the pool with an index score of 105 or better.

4.02.04 Commission Standards

Table IV sets forth the Commission's standards for first-time freshmen for each of the institutions.

4.02.05 Reporting of Data

Institutions shall report all undergraduate, freshman applicants to the Commission on the Undergraduate Applicant File of the Student Unit-Record Data System. This data will be used to monitor the compliance of institutions with the Commission's standards and to evaluate the policy's impact on institutions and students. (See Commission policy V-C for definitions and reporting dates.)

4.03 Implementation Schedule

The standards will be met by all institutions by the fiscal year 1991-92. Both Colorado State University and the University of Northern Colorado have the full five years for implementation. They must decrease the window size annually by at least $\frac{1}{5}$ of the difference between the fall 1985 actual window and the permanent 20 percent window. The Colorado School of Mines, the University of Colorado-Colorado Springs, and Adams State College already meet the standards and must maintain at least the minimum standards set by this policy. The University of Colorado-Boulder, Fort Lewis College, Mesa State College, the University of Southern Colorado, and Western State College have until 1989-90 to implement the standards and must decrease the window size annually by at least $\frac{1}{3}$ of the difference between the fall 1985 actual and the permanent 20 percent window. Metropolitan State College and the University of Colorado-Denver almost meet the standards and have until the Fall of 1987 to meet the standards. Table V displays the windows as they appear for fall 1985 and the maximum size of the window permitted during the implementation period.

Each year the Commission staff will collect data on enrollment, transfer, and first-time freshmen admission standards for all institutions and will prepare a report for Commission consideration. In July of each year, the Commission will formally review the background data and reconsider the question of whether the ultimate standards designated under the policy should be retained or modified and whether the implementation schedule should continue on track. Over the next year the base of data will be collected for the entire 1986-87 year rather than for only the fall term. Some change in the scale and in institutional placement on this scale is expected.

The potential impact of admission standards on the governing board appropriation will be considered annually by the Commission when it sets the percentage allocation of funding for the governing boards.

5.00 Transfer Students

5.01 Background

No single scale comparable to that for first-time freshmen has been developed for transfer admission standards. Instead, the admissions standards are based on the grade point average from previous collegiate work, transfer hours, and high school record.

Similar to the first-time freshmen standards, each institution may admit students who do not meet the standards, but who meet other criteria, up to a number not to exceed 20 percent of the admitted pool of students. The purpose of this "window" is to provide the institution greater flexibility in recognizing promising students who do not meet these particular numerical standards, but who the institution believes will succeed. Of particular interest to the Commission are minority students, students with special talents, and students with disabilities, including those with learning disabilities.

Transfer applicants who meet the CCHE admission requirements are not guaranteed admission to the institution. Individual institutions will make decisions based on other criteria as well, including the collegiate curriculum and special talents and experiences. Institutions are encouraged to select the more qualified applicants from those who meet the Commission standards.

5.02 Standards

To meet the CCHE transfer admissions standards, students must meet one of the following conditions. A student must:

- 5.02.01 have earned fewer than 30 collegiate semester hours and meet the first time freshmen standards for the institution;
- 5.02.02 be enrolled in a CCHE approved guaranteed transfer agreement and meet the minimum academic qualifications outlined therein;
- 5.02.03 have earned 12 to 29 collegiate semester credit hours and have the GPA shown in Table VI (page 20); or
- 5.02.04 have earned 30 or more collegiate semester credit hours and have a 2.0 GPA in previous college courses.

5.02.05 Reporting of Data

Institutions shall report all undergraduate, transfer applicants to the Commission on the Undergraduate Applicant File of the Student Unit-Record Data System. This data will be used to monitor the compliance of institutions with the Commission's standards and to evaluate the policy's impact on institutions and students. (See Commission policy V-C for definitions and reporting dates.)

5.03 Implementation Schedule

The standards for transfer must be fully implemented by next year, 1987-88. Table VII (page 21) displays the windows as they appear for fall 1985. No institution greatly exceeds the 20 percent window but there are a number of institutions with no data. The standards and/or the implementation schedule may need to change if the data, when collected, presents a different picture.

Each year the Commission staff will collect enrollment data on transfer and first-time freshmen admission standards for all institutions and will prepare a report for Commission consideration. In July of each year, the Commission will formally review the background data and reconsider the question of whether the ultimate standards designated under the policy should be retained or modified and whether the implementation schedule should continue on track. Over the next year the base of data will be collected for the entire 1986-87 year rather than for only fall term. Some change in the scale and in institutional placement on this scale is expected. Some provision may

also be needed for those institutions who have not systematically collected these data in the past. It may take them more than a year to implement the systems and collect the data.

The potential impact of admission standards on the governing board appropriation will be considered annually by the Commission when it annually sets the percentage allocation of funding for the governing boards.

6.00 Special Issues

A number of special issues have been identified in the process of developing the Commission admission standards. The resolution of these issues is presented in this section. In many cases, the resolution represents an exception to the standards presented above.

6.01 Special Students Without a Bachelor's Degree

There is a need to provide a special policy for special students because these students typically:

- are adults who have been out of school;
- represent a large number of students at the urban campuses;
- frequently decide late that they wish to take a course leaving too little time for the admissions process; and/or
- are only interested in a course or two and are not interested in a degree program.

In fall 1985, there were 769 special students at the University of Colorado-Denver and 452 at the University of Colorado-Colorado Springs.

Special students without a bachelor's degree are exempt from admission standards and may attend an institution without being required to show credentials if the following conditions are met:

- The student is 20 years of age or older as of September 15 for admission in a summer or fall term or as of February 15 for admission in a winter or spring term;
- The student is not enrolled in a degree program;
- The student maintains a 2.0 grade point average while enrolled as a special student; and

- The institution has a policy approved by Commission staff limiting the time or the number of credit hours during which a student may remain in the special student category.

Special students without a bachelor's degree that do not meet the above criteria will be counted as part of the calculation of an institution's first-time freshmen window. Once reported and included in the window calculation, these students will not subsequently be subject to admission standards at that institution.

Institutions shall report all first-time, undergraduate special student applicants to the Commission on the Undergraduate Applicant File of the Student Unit-Record Data System. This data will be used to monitor the compliance of institutions with the Commission's standards and to evaluate the policy's impact on institutions and students. (See Commission policy V-C for definitions and reporting dates.)

In addition, the Commission will monitor the number of enrolled special students as a percentage of the total number of enrolled students for each year. If this percentage increases significantly, the Commission will reconsider this special student exception.

6.02 Summer Students

There are two types of newly entering summer students recognized in this policy: 1) students who plan to attend the institution for the summer term only; and 2) students who plan to complete a degree at the institution and begin their program in the summer term. (Note, in March 1988, the Commission removed the provision in this policy for Summer Provisional Programs, effective September 1988.) Only the second category of students must meet the admission standards at the time of their admission.

The first category of student is frequently a different constituency than the institution serves in the academic year. They come to the institution for the summer only. They take a few courses and do not pursue a degree at the institution. These students are exempt from Commission's admission requirements.

Institutions shall report all summer student applicants to the Commission on the Undergraduate Applicant File of the Student Unit-Record Data System. This data will be used to monitor the compliance of institutions to the Commission's standards. (See Commission policy V-C for definitions and reporting dates.)

6.03 Non-Traditional Students

The terminology "non-traditional student" has been a euphemism for older students. The terminology is used in statute in the role and mission for Metropolitan State College. In the statute (23-54-101), stating the role and mission of Metropolitan State College, admission standards are described as modified open "...except that non-traditional students...who are at least 20 years of age shall only have an admission requirement of a high school diploma, a GED high school equivalency certificate, or the equivalent thereof." Non-traditional student is not referenced in the laws for any other campus.

The Commission staff proposal for defining non-traditional students at Metropolitan State College is as follows:

- 6.03.01 First-Time Freshmen and Transfer Students - First-time freshmen and transfer students who are at least 20 years of age on or before September 15 for admission in a summer or fall term or on or before February 15 for admission in a winter or spring term are considered non-traditional students.

6.04 Students with Foreign Transcripts

Students with foreign transcripts represent a particular circumstance. Foreign transcripts cannot be easily converted into equivalents to determine if they meet the Commission's admissions requirements.

The Commission's policy for students with foreign transcripts is as follows:

- 6.04.01 International students with a United States high school or collegiate transcript must be treated as a regular transfer or first-time freshmen student and must meet the standards defined by the Commission.
- 6.04.02 Students having only foreign transcripts, whether they are first-time freshmen at the collegiate level or transfer students, will be treated as a special category of students and will not be considered in the calculations determining whether the institution has met the Commission's admission standards. The Commission directs the individual institutions to evaluate to the best of their ability, the foreign credentials presented by the student to assure that they are of an equivalent level to those students admitted under the Commission's standards.

6.05 Two-Year Students at Adams State College and Mesa State College

There are two baccalaureate institutions in the state with legally defined roles and missions at the two-year level: Adams State College in Alamosa and Mesa State College in Grand Junction. For Adams State College, the statutory statement reads, "Adams State College shall offer...two year transfer programs with a community college role and mission but shall not offer vocational education programs."

For Mesa State College, the statutory reference reads, "Mesa State College shall also maintain a community college role and mission, including vocational and technical programs." Students attending community and junior colleges or applying for admission to the two-year programs at Adams State College or Mesa State College are not required to meet Commission admission standards.

Students may be admitted at Adams State College or Mesa State College in either a two-year or a four-year program. Those admitted to the four-year programs as first-time freshmen must meet first-time freshmen admission standards. Students admitted into the two-year programs must meet the Commission's transfer admission standards in order to pass from the two-year programs to the four-year programs. As part of the

Commission's accountability role in the area of admission standards, the Commission will collect data on students admitted into and transferred out of two-year programs on the Adams State College and Mesa State College campuses.

6.06 Auraria Common Pool of Courses

There is currently a common pool of courses shared between Metropolitan State College and the University of Colorado-Denver on the Auraria campus. Students enrolled at the University of Colorado-Denver may take courses offered by faculty at Metropolitan State College and have those courses appear on their transcript as if they were offered by the University of Colorado-Denver. Similarly, students at Metropolitan State College may take University of Colorado-Denver courses that are a part of this common pool and have them appear on their transcript as if they were Metropolitan State College courses.

This practice has led to issues about transfer and how students are admitted to the two different programs at the University of Colorado-Denver and Metropolitan State College and whether this practice should be continued with the newly imposed admission standards.

This current arrangement is not addressed in the context of the admission standards project. If there is to be change in this practice, it will be addressed as a separate issue. So long as this practice continues, students may be admitted either into the University of Colorado-Denver program under UCD admission standards or into the Metropolitan State College program under Metro standards and may continue to participate in the pool courses.

6.07 High School Concurrent Enrollment

There exists on many of the college and university campuses, the opportunity for high school students to take selected college courses while in high school. Approval of the high school and the college or university is necessary. To participate in these programs, high school students must have taken the basic secondary courses and have proven themselves to be well qualified for college level work. These students are not required to meet Commission admission standards.

6.08 Students With Baccalaureate Degrees

Many students, particularly at urban institutions, return to campus after receiving a baccalaureate degree and take additional baccalaureate level courses. Because these students have already proven themselves by successfully completing a baccalaureate degree, the Commission will not consider them as part of the admission pool for baccalaureate level programs. Institutions will not count these students as part of their admitted pool. The institutions should maintain their records in such a way as to clearly identify these students as post-baccalaureate students although they are taking undergraduate courses.

6.09 Extended Studies Students

Students admitted to degree programs, whether those programs are offered on or off-campus, must meet the Commission's admission standards. Students not enrolled in degree program but who take individual Extended Studies courses are not required to meet Commission admission standards. The Commission intends that the Extended Studies courses be available to all who wish to take them but they should not be used as a route into on-campus degree program. The Commission will monitor the number of students entering on-campus programs as transfer students from the Extended Studies Program. If this number increases significantly, the Commission will reevaluate this policy.

6.10 Course Requirements

The Commission adopted, on October 7, 1983, recommendations concerning the secondary school curriculum. The Commission strongly encourages institutions and governing boards to follow these or more rigorous recommendations, but does not require such standards as part of its admissions standards policy.

6.11 GED Students

The GED test is a test of equivalency for the high school diploma. Students without a high school diploma who receive a score of 55 or greater are considered to have met the Commission standards for the high and selective institutions. Students receiving 45 or greater meet the Commission standards for the moderately selective and modified open institutions. This route to admission is not to be used by students with the diploma. The Commission will closely monitor this category of admission.

6.12 International and National Student Exchange Programs

Students enrolled in an institution for one year or less through formal international or national exchange agreements will not be counted in the applicant or admission pool.

6.13 Length of Time Required to Keep Institutional Records

An institution must keep up to one full past year of files and records to document admission decisions. These records must be available to auditors and must be sufficient to justify the admission decisions made and the data submitted to the Commission as part of SURDS Undergraduate Applicant File reports. For example, during the 1994-95 fiscal year, an institution must maintain complete records for 1993-94. Once 1994-95 is complete, the 1993-94 data does not need to be maintained, but the 1994-95 data would be kept during the 1995-96 fiscal year.

6.14 Penalties For Not Meeting the Standards

~~The Commission will adjust its distribution percentage for the following year to recognize institutional deviations from the implementation schedule for first time freshmen and transfer standards.~~ Revised November 2, 1995. See page I-F-22.

7.00 Procedures for Updating This Policy

7.01 Updating the Technical Appendix

Each July, the Commission shall produce an annual report on admission standards. This report will be submitted by the following January to the General Assembly satisfying the statutory requirement that "the Commission shall make an annual report to the General Assembly detailing the specific admissions requirements in the categories of students described in subsection (1) of this section at each campus and institution of higher education. Such report shall be due not later than January 1 of each year, beginning January 1, 1986." Part of the July action of the Commission will be an update of the technical appendix to the Commission's admission standards policy. The technical appendix and the annual update will include the precise definition of terms and methods of calculation and the resulting quantitative assessment of the admission standards for each of the four-year college and university campuses. The Commission will work with governing board representatives in annually developing the update on the technical appendix.

7.02 Updating the Standards

With the adoption of this policy, the Commission will have established admission standards for each of the baccalaureate college and university campuses beginning with the 1987-88 academic year. Beginning in 1991-92, after fall implementation of the Commission's standards, the Commission will reconsider its admission standards policy on a five-year basis. During the implementation period the Commission will annually reconsider its standards. Of particular importance in the annual review will be a review of the fiscal impact of the standards. The outcome of this review may result in a change in the final standards, in the implementation schedule, and/or in the allocation of general funds established by the Commission.

8.00 Enrollment Limits on Admission Standards

8.01 Standards for Out-of-State Students Must Equal or Exceed Those For In-State Students

SB 93-136 added the following language to 23-1-113 (1) (a):

Effective July 1, 1993, the academic admission standards established for determining admission of students who do not have in-state status, as determined pursuant to section 23-7-103, shall equal or exceed those established for determining admission of in-state students.

The admission standards policy (as described in sections 1.00 through 6.00) applies equally to both in-state and out-of-state students, no differentiation is made by tuition status and the 20 percent windows apply to the pool of all accepted students. It is possible, however, for an institution to use its available window "slots" to give preferential treatment to applicants according to student residency. Such a practice would violate the intent of the new statutory language. Therefore, the following procedures will be carried out yearly in order to monitor compliance with the intent of this new requirement.

8.01.01 Separate Window Calculations for In-State and Out-of-State Accepted Students

Each fiscal year, after final Undergraduate Applicant data has been submitted and edited, separate window calculations will be made by Commission staff for students reported as in-state and out-of-state. Institutions whose in-state window percent is less than the out-of-state percent (by at least 0.5 percent) will be subject to further analysis. If this further review is not indicated by this comparison, then the institution will be considered to be in compliance.

8.01.02 Acceptance Decisions by Admission Index Range

The acceptance decisions made by institutions who do not meet the criteria identified in 8.01.01 will be analyzed. Data will be aggregated by in-state and out-of-state applicant for the following nine categories of admission index score: No Score; LO -- 78; 79 -- 85; 86 -- 91; 92 -- 97; 98 -- 102; 103 -- 110; 111 -- 120; and 121 -- HI.

Within each category, the number of total applicants and the percent offered admission will be calculated for both in-state and out-of-state applicants. If the percent of in-state applicants offered admission is greater than the percent of out-of-state applicants in almost every case, then the institution will be considered to be in compliance with the intent of the statutory language. One or two exceptions will not necessarily be considered as evidence of lack of compliance as long as these exceptions do not indicate a clear preference for out-of-state applicants, especially in the ranges around the institution's cutoff score.

8.01.03 Consequence for Not Complying With Statutory Intent

If the data for an institution does not show compliance with the analysis described in both 8.01.01 and 8.01.02, then staff will formally request an explanation and corrective action from the institution's governing board, and a discussion item for Commission review will be prepared.

8.02 Not less than 55 percent of the incoming freshman class at each state-supported institution of higher education shall be in-state students.

SB 93-136 added the following directive to statute (amended by SB 94-218):

23-1-113.5. Commission directive - resident admissions. It is the intent of the general assembly that all state-supported institutions of higher education operate primarily to serve and educate the people of Colorado. The general assembly therefore directs the commission to develop admission policies to ensure that, beginning with the fall term of 1994 and for the fall term of each year thereafter, not less than fifty-five percent of the incoming freshman class at each state-supported institution of higher education are in-state students as defined in section 23-7-102 (5). Commencing with the fall term of 1995, this requirement shall be met if the percentage of in-state students in the incoming freshman class for the then current fall term and the two previous fall terms averages not less than fifty-five percent. Such fifty-five percent requirement shall also apply to the up to twenty percent of incoming freshmen students admitted based on criteria other than standardized test scores, high school class rank, and high school grade point average pursuant to section 23-1-113 (1) (b).

8.02.01 Use of the Fall Term, SURDS Enrollment File

Fall term data from the Student Unit-Record Data System (SURDS) Enrollment File will be used to test compliance.

8.02.02 Calculation of the In-State Percentage for First-Time Freshmen

This statutory language applies to all public institutions, including state system community colleges and local district colleges. The in-state percentage will be calculated from the selection of all students on the Fall Enrollment File who meet the following conditions: credit hours - resident instruction greater than zero (in other words, students with only extended studies or sponsored program credit hours will be excluded from this calculation); student level equal 11, 12, or 19; and registration status equal 1 or 2. The percent will be calculated as the total number meeting the above condition divided into those from this group that are reported as having in-state tuition status. It should be noted that this calculation includes all enrolled students, including those who were admitted through an institution's admission window, with the exception of native American students attending Fort Lewis College, who are excluded from this calculation. Beginning with fall 1995, the average of the most recent three fall term percentages will be used to test compliance. This percentage will be calculated as the total in-state over the three years divided by the total enrollment.

8.02.03 Consequence for Not Complying With 55 Percent Restriction

If the data for an institution shows an in-state percent less than 55 percent for first-time freshmen, then staff will formally request an explanation and

corrective action from the institution's governing board, and a discussion item for Commission review will be prepared.

- 8.03 Not less than two-thirds of total enrollment should be in-state (with an exception for the Colorado School of Mines that uses a 60 percent limit).

The second part of 23-1-113.5 that was added by SB 93-136 (and amended by SB 94-218) states:

23-1-113.5. Commission directive - resident admissions. ... In addition, the commission shall develop admission policies to ensure, beginning with the fiscal year which begins July 1, 1994 and for each fiscal year thereafter, that not less than two-thirds of the total student enrollment, including undergraduate and graduate students, at each campus of each state-supported institution of higher education, except the Colorado school of mines, are in-state students as defined in section 23-7-102 (5) and that not less than sixty percent of the total student enrollment, including undergraduate and graduate students, at the Colorado school of mines are in-state students as defined in section 23-7-102 (5). This requirement shall be met if, commencing with the fiscal year that begins July 1, 1995, the fraction of in-state students, as defined in section 23-7-102 (5), enrolled at each state-supported institution of higher education, except that the Colorado school of mines, averages not less than two-thirds of the total fiscal year student enrollment for the then current fiscal year plus the two previous fiscal years. For the Colorado school of mines this fraction of in-state students shall be not less than three-fifths. Such policies shall be implemented no later than July 1, 1994. ...

(2) (a) The provisions of subsection (1) of this section regarding the fraction of students who are in-state students attending the Colorado school of mines shall also apply to western state college.

(b) This subsection (2) is repealed, effective July 1, 1997.

(3) The provisions of subsection (1) of this section regarding the fraction of students who are in-state students at institutions of higher education do not apply to any native American student who attends fort lewis college. The calculation of the fraction of students at fort lewis college who are in-state students shall exclude any native American student attending the college.

8.03.01 Use of the Student Enrollment Report

Full-time equivalent (FTE) student enrollment will be used. This data is reported to the Commission on the Student Enrollment Report, as specified in the CCHE *Policy for Reporting Full-Time Equivalent Student Enrollment*. Full fiscal year data will be used. This is the same data reported by the institutions on Format 70 in their Budget Requests.

8.03.02 Calculation of the In-State Percentage for Total Enrollment

This statutory language applies to all public institutions, including state system community colleges and local district colleges. The total resident instruction FTE from the Student Enrollment Report will be divided into the total in-state resident instruction FTE. Institutions, with the exception of the Colorado School of Mines (and Western State College prior to July 1, 1997), whose percentage is greater than or equal to two-thirds (66.67 percent) will be in compliance with the policy. For the Colorado School of Mines (and Western State College prior to July 1, 1997), compliance is a percentage of 60 percent or higher. Fort Lewis College will supply the Commission with the FTE enrollment of their native American students so that their FTE can be excluded from these calculations. Beginning with fall 1995, the average of the most recent three fiscal year percentages will be used to test compliance. This percentage will be calculated as the total in-state over the three years divided by the total enrollment.

8.03.03 Consequence for Not Complying With Two-Thirds In-State Enrollment Restriction

If the data for an institution shows an in-state percent less than 66.67 percent of total FTE enrollment (or less than 60 percent for the Colorado School of Mines or Western State College prior to July 1, 1997), then staff will formally request an explanation and corrective action from the institution's governing board, and a discussion item for Commission review will be prepared.

8.04 Reporting Requirement

The final sentence of 23-1-113.5 states:

23-1-113.5. Commission directive - resident admissions. ... The commission shall report to the general assembly on or before January 1, 1995, the policies it has established pursuant to this section.

8.04.01 Legislative Report

Once adopted, Commission staff shall report to the general assembly on the implementation of this policy.

8.04.02 Reports to the Commission

Upon receipt and final editing of the data specified in sections 8.01, 8.02, and 8.03, Commission staff shall prepare an analysis of the data and prepare a report for the Commission. Any institutions failing to meet the statutory language shall be identified and a subsequent discussion item from the institution and/or its board shall be prepared for Commission action.

TABLE I
ADMISSION INDEX

TABLE II
DISTRIBUTION OF APPLICANTS BY ACT AND GPA SCORES

ACT Score	Percent of Applicants With Corresponding ACT or Higher (FY 92 -- FY 94)
11	99.95%
12	99.83%
13	99.48%
14	98.68%
15	96.93%
16	94.22%
17	90.50%
18	85.34%
19	79.11%
20	72.00%
21	64.16%
22	55.65%
23	47.47%
24	39.34%
25	31.47%
26	24.20%
27	17.94%
28	12.68%
29	8.37%
30	5.25%
31	3.05%
32	1.55%
33	0.68%
34	0.22%
35	0.06%
36	0.01%

High School GPA	Percent of Applicants With Corresponding HS GPA or Higher (FY 92 -- FY 94)
1.5	99.61%
1.6	99.31%
1.7	98.88%
1.8	98.34%
1.9	97.55%
2.0	96.51%
2.1	94.99%
2.2	92.97%
2.3	90.68%
2.4	87.85%
2.5	84.56%
2.6	80.78%
2.7	76.47%
2.8	71.97%
2.9	66.71%
3.0	61.26%
3.1	55.24%
3.2	49.19%
3.3	43.01%
3.4	36.75%
3.5	30.63%
3.6	24.85%
3.7	19.49%
3.8	14.55%
3.9	9.87%
4.0	5.75%

TABLE III EQUIVALENCY OF COMMISSION'S ADMISSIONS INDEX SCORE				
High School Class Rank	ACT Score at Corr % for CO HS Seniors	Commission's Admission Index Score	Upper % of Applicant Pool	Average Number of Fiscal Year Applicants
90	27	114	23.5%	7,515
88	27	112	27.0%	8,633
86	26	109	32.7%	10,456
84	26	109	32.7%	10,456
82	25	107	37.1%	11,853
80	25	105	41.7%	13,321
78	25	103	46.5%	14,873
76	24	101	50.8%	16,249
74	24	100	53.5%	17,114
72	24	100	53.5%	17,114
70	23	96	61.9%	19,784
68	23	96	61.9%	19,784
66	23	95	64.6%	20,651
64	22	94	66.3%	21,193
62	22	94	66.3%	21,193
60	22	92	70.8%	22,648
58	22	92	70.8%	22,648
56	21	89	76.3%	24,391
54	21	89	76.3%	24,391
52	21	89	76.3%	24,391
50	21	87	79.3%	25,371
48	20	84	84.0%	26,864
46	20	83	85.5%	27,343
44	20	83	85.5%	27,343
42	20	83	85.5%	27,343
40	19	80	89.1%	28,487
38	19	80	89.1%	28,487
36	19	79	90.6%	28,959
34	19	79	90.6%	28,959
32	18	76	93.4%	29,855
30	18	74	94.7%	30,299
28	18	74	94.7%	30,299
26	18	72	96.1%	30,722
24	17	71	96.6%	30,884
22	17	71	96.6%	30,884
20	17	69	97.5%	31,169
18	17	69	97.5%	31,169
16	16	64	99.0%	31,655
14	16	63	99.2%	31,710
12	16	63	99.2%	31,710
10	15	59	99.6%	31,864

TABLE IV
COMMISSION'S ADMISSIONS STANDARDS FOR FIRST-TIME FRESHMEN

Adams State College*	80
Colorado School of Mines	110
Colorado State University	101
Fort Lewis College	80
Mesa State College*	80
Metropolitan State College**	76
University of Colorado at Boulder	103
University of Colorado at Colorado Springs	92
University of Colorado at Denver	93
University of Northern Colorado	92
University of Southern Colorado	80
Western State College	80

* Applies to students admitted to four-year programs only.

** Applies to admitted students 19 years of age and younger.

The index scores are effective beginning FY 1996-97 and remain in effect until the Commission takes formal action to revise the index scores. There will be no phase-in period, waivers, or exceptions.

Each institution will be accountable for complying with the following admission standard: a minimum of 80 percent of its admitted first-time freshmen students, as defined in this policy, must either meet the specified index score, the specified GED score, or participate in the non-traditional transcript pilot study. An institution may use alternate criteria for no more than 20 percent of admitted freshmen.

6.14 Penalties for Not Meeting the Standards (section replaces 6.14 on page I-F-13)

If an institution should admit more than 20 percent of first-time freshmen students who do not meet the freshmen standards in any academic year, the Commission shall assess a financial penalty against the governing board. Such penalty shall be based on the number of admitted students, regardless of residency, exceeding the statutory 20 percent limitation. The penalty will be calculated by multiplying the amount of state support applicable in the fiscal year the students were enrolled times the number of students admitted in excess of the window. The penalty is binding and may not be appealed.

If an institution exceeds the 20 percent limitation for two consecutive years, the Commission, in addition to the financial penalty, will adjust the institution's index score by lowering it to the next index level or the point at which the institution would comply with the standards, whichever is lower.

TABLE V
IMPLEMENTATION SCHEDULE FOR FIRST-TIME
FRESHMEN STANDARDS*

	% of Fall 1985 First-Time Freshmen Admits Below <u>the Standards</u>	Fall 1987** <u>Window</u>	1988-89 <u>Window</u>	1989-90 <u>Window</u>	1990-91 <u>Window</u>	1991-92 <u>Window</u>
Five-Year Implementation						
Colo State Univ	43.5%	38.8%	34.1%	29.4%		
Univ of Northern Colo	50.0%	44.0%	38.0%	32.0%	26.0%	
Three-Year Implementation						
Univ Colo-Bldr.	27.3%	24.9%	22.4%	20.0%	--	--
Ft Lewis College	26.5%	24.3%	22.2%	20.0%	--	--
Mesa State Coll	27.0%	24.7%	22.3%	20.0%	--	--
Univ of So Colo	29.6%	26.4%	23.3%	20.0%	--	--
Western St Coll	30.1%	26.7%	23.4%	20.0%	--	--
Meet Standards in fall 1985 or Must Meet Standards fall 1987						
Adams St Coll	14.3%	--	--	--	--	--
Colo School Mines	7.7%	--	--	--	--	--
Metro St Coll	22.4%	20.0%	--	--	--	--
Univ Co-Co Spgs.	14.7%	--	--	--	--	--

* The implementation schedule is subject to change with the annual reconsideration of the data.

** Because the data for a full year of admission standards will be collected for the first time in 1986-87, the 1987-88 standards will be based on fall term only.

The new implementation schedule for the University of Colorado at Denver will start with the 1990-91 fiscal year. In addition, a new schedule for Colorado State University will start with 1991-92 and a one-year extension for the University of Northern Colorado has been approved. The schedules are shown below:

	1990-91 <u>Window</u>	1991-92 <u>Window</u>	1992-93 <u>Window</u>	1993-94 <u>Window</u>	1994-95 <u>Window</u>	1995-96 <u>Window</u>
Univ Co-Denver	51.7%	45.4%	39.0%	32.7%	32.7%	26.4%
Colo State Univ	base year%	37.0%	31.0%	25.0%	25.0%	20.0%
Univ of Northern Colo	no change	26.0%	20.0%	--	--	--

TABLE VI
GPA REQUIREMENTS FOR STUDENTS
WITH 12 - 29 COLLEGIATE
SEMESTER CREDIT HOURS

RECEIVING INSTITUTION			
SPENDING INSTITUTION	High Admission Institutions CSM, CSU UCB, UCD	Selective Institutions UCCS, UNC	Moderately Selective Institutions ASC, Mesa, FLC, Metro, WSC, USC
High Admission Requirements CSM, CSU, UCB, UCD	2.00 GPA	2.0 GPA	2.0 GPA
Selective Institutions UCCS, UNC	2.5 GPA	2.0 GPA	2.0 GPA
Moderately Selective ASC,* Fort Lewis Mesa,* Metro, Western, USC	2.5 GPA	2.5 GPA	2.0 GPA
Open Community Colleges	2.5 GPA	2.5 GPA	2.0 GPA
All Other Institutions	2.5 GPA	2.5 GPA	2.0 GPA

* The same transfer standards apply to the two-year programs at these institutions.

TABLE VII
TRANSFER ADMITS BELOW TRANSFER STANDARDS

	<u>% of Fall 1985 Transfer Admits Below the Standards</u>
HIGH	
Colorado School of Mines	7.1%
University of Colorado-Boulder	10.2%
Colorado State University	12.0%
SELECTIVE	
University of Colorado-Colorado Springs	9.5%
University of Colorado-Denver	5.8%
University of Northern Colorado	22.1%
MODERATELY SELECTIVE	
Adams State College	23.4%
Fort Lewis College	21.0%
Mesa State College	N/A*
University of Southern Colorado	N/A*
Western State College	23.2%
MODIFIED OPEN	
Metropolitan State College	N/A*

* Not available -- Data was not provided by the institution.

TECHNICAL APPENDIX
for the
STATEWIDE ADMISSION STANDARDS PROJECT

October 3, 1986

Colorado Commission on Higher Education
1300 Broadway, 2nd Floor
Denver, CO 80203
(303) 866-2723

TABLE OF CONTENTS

UNDERGRADUATE APPLICANT FILE DATA	I-F-28
ANALYTICAL METHOD	I-F-29
Concordance for High School GPA and High School Rank	I-F-30
High School Performance Index	I-F-30
ACT to SAT Concordance	I-F-31
Standardized Test Score Index	I-F-32
CCHE ADMISSION INDEX	I-F-32

LIST OF TABLES

FILE FORMAT FOR THE UNDERGRADUATE APPLICANT FILE	I-F-34
DEFINITIONS OF UAF DATA FIELDS	I-F-35
VALID STUDENT TYPES	I-F-38
GPA/RANK CONVERSION TABLE FROM FALL, 1985 DATA	I-F-39
HIGH SCHOOL PERFORMANCE TABLE	I-F-40
ACT/SAT CONVERSION TABLE FROM FALL, 1985 DATA	I-F-41
STANDARDIZED TEST SCORE TABLE	I-F-42
MATRIX OF ADMISSION INDEX VALUES	I-F-43
DISTRIBUTION OF ADMISSION INDEX SCORES FOR FALL 1985	I-F-45

LIST OF FIGURES

PLOT OF HS GPA VERSUS EQUIVALENT RANKS	I-F-48
PLOT OF ACT SCORES VERSUS EQUIVALENT SAT SCORES	I-F-49

TECHNICAL APPENDIX

This appendix describes the data collected and the analysis steps that were used in developing the CCHE Admission Index adopted by the Colorado Commission on Higher Education in October 1986. The first section defines the data elements that were collected, describing the development and review process, the file layout, and problems encountered during this first cycle of collecting the data. The second section describes the analytical method used, describing the steps of the analysis, displaying the actual results, and identifying remaining problems. Finally, summaries of the population on the admission index are presented, along with a description of future steps.

Undergraduate Applicant File Data

In May 1985, the Commission began to develop a database to support the development of statewide admission standards. A committee of governing board representatives met with Commission staff throughout that summer, and the final data format was approved by the Commission at the November 1, 1985 Commission meeting. The data elements for the Undergraduate Applicant File (UAF) are shown in Table A. The full description for this file is provided in the Student Unit-Record Data System Manual, and a summary of the definitions for each field is given in Table B.

Generally, the UAF was designed to provide data about all new undergraduate applicants to each Colorado public, four-year institution. This includes all students classified as undergraduates that apply for admission to the institution, whether or not they are accepted for enrollment or actually enroll. Students with a bachelor's degree, even if they plan to enroll in an undergraduate program, are excluded from this file.

All of the students on this file, therefore, will be classified by the institution as first-time, first-time other, or transfer students. First-time students are students that have not previously attended a postsecondary education institution. First-time, other students may have previously attended a college, but they are not intending to apply any credits toward a degree. Finally, transfer students are students that have attended another college and are intending to transfer credits toward a degree program at the receiving institution.

Students are also classified by level. For the UAF, only undergraduate students should be reported, and depending on the Registration Status, only certain combinations of Student Level and Registration Status are legal. Table C shows the combinations for the three types of students that were analyzed during this project:

- 1) first-time freshmen
- 2) transfer students
- 3) special students

In addition, other selections were criteria used. At Adams State College (ASC) and Mesa State College (MC), students are enrolled into either a four-year program or a two-year program. Since only the four-year program students are subject to admission standards, the two-year program students were excluded from further analysis. (Note, a student at ASC or MC moving from a two-year program into a four-year program must be reported as a transfer student and will be subject to the admission standards for transfer students.)

At Metropolitan State College (MSC), an exemption to admission standards is provided in statute for non-traditional students. The definition for non-traditional students is all students of age 20 or older as of the first day of classes, and these students were excluded from further analysis.

The Admission Status variable indicates whether an applicant was accepted by the institution and if, after being accepted, the student enrolled. Calculations of the statewide admission index are based on the pool of all applicants, whether or not they were accepted by an institution for enrollment. The evaluation of an institution's admissions data, however, is based on all students that were accepted, whether or not they later enrolled, since this is the only group under the control of the institution; an institution cannot determine which students will apply and which accepted students will actually enroll.

The UAF data was collected for fall 1985 from twelve public, four-year institutions (the UC-Health Sciences Center is not included since they don't admit first-time undergraduates). Tapes were due by March 15, 1986, but as this was the first year this data was requested, it was not submitted by all institutions until late April. In addition, data errors and misunderstandings of the data requested required the resubmission of most tapes. Many of these reporting problems were expected since this is the first time such data has been requested; at some institutions the data to be reported had not previously been collected. In the future, it is expected that the data collection process will proceed more smoothly and that the data will be available soon after the close of registration for each term.

Analytical Method

The construction of the statewide admission index followed a multi-step process. First, the UAF data for all first-time freshmen in fall 1985 that were applying for entrance to a four-year program, and who were not non-traditional students at MSC, were selected into a separate analysis file. Then the Student Identification Numbers for this sample were used to make sure that all duplicate entries were excluded. This unduplicated file was then used to construct two separate indices: (1) the High School Performance Index (HS Index), and (2) the Standardized Test Index (ST Index). The HS Index is based on high school grade point average (GPA) and high school class rank, while the ST Index is based on composite ACT and total SAT scores.

For each index, a concordance was developed between the two basic measures. In other words, an equivalent range of SAT scores was computed for each ACT score and an equivalent range of class ranks was computed for each high school GPA. The scores for each index were scaled to have a mean and median of 50 and a standard deviation of 10. To compute the Admission Index score for a student, the separate HS Index and ST Index scores are each computed and then added together. The distribution of Admission Index scores, therefore, has a mean of 100.

The basic analytical method used for building the concordance tables was equipercntile matching (Chronbach, 1960.) Basically, this method consists of a process of matching the cumulative frequency distributions of two variables that are present for every record. The scores that produce the nearest possible equivalence of the respective cumulative frequency distributions are "matched" to each other. The actual concordances for HS GPA to rank and ACT to SAT are given in the following sections.

Concordance for High School GPA and High School Rank

The high school performance data consists of a student's high school GPA, as reported on the student's transcript, and the student's reported rank in class. For these calculations, an unduplicated headcount file was selected. All records that had data for both HS GPA and Rank were selected, for a total of 18,615 records. All HS GPA values were rounded to the nearest single decimal point and all rank values were

rounded to the nearest whole number. Table D summarizes the basic calculations for this concordance. The first three columns show the frequency and cumulative frequency distribution of the HS GPA scores reported on the file. Note that a GPA of 1.1 was the lowest GPA reported for any of these students.

The last four columns give the low and high rank values corresponding to each GPA score. Since there are 100 possible rank values and only 40 possible GPA scores, a range of ranks corresponding to each GPA is necessary. The first low rank value is set at 1, each additional low rank value is simply set to one more than the high rank value in the previous interval. The high rank values are selected such that the cumulative frequency of all scores through that rank value is as close as possible to the cumulative frequency of the corresponding HS GPA score.

For example, the rank interval corresponding to a HS GPA of 2.0 is 18 thru 21. The rank value 18 is one more than 17, the high rank of the previous interval. This rank interval gives a cumulative frequency of 1,231, compared to a cumulative frequency for a 2.0 GPA of 1,207. Figure A plots the two cumulative frequency distributions. As can be seen in the figure, the two distributions are very similar.

The correlation of HS GPA to Rank was .89, so there was a strong relationship in the data between the two measures. However, when complete fiscal year data is available (that is, data for the summer through the spring terms) the actual concordance may change. In addition, it will be important to recheck this concordance over time to make sure that the relationship does not change.

High School Performance Index

Once the HS GPA concordance was computed, the High School Performance Index (HS Index) could be computed. The unduplicated data was used. For each student reporting a rank, an equivalent HS GPA score was computed by looking up the appropriate value from Table D. A new variable was then computed equal to the maximum of the reported HS GPA or the equivalent GPA from the rank. For students with only a GPA or a rank score that was the reported value, but students with both scores got the benefit of the higher score.

The cumulative frequency distribution of this calculated value was then equivalenced, using equipercentile matching, to a theoretical T distribution. A T distribution is a normal distribution with a mean of 50 and a standard deviation of 10. The result of this matching is given in Table E. Each T score was rounded to the nearest whole number to make the table easier to use and to report. This table gives the HS GPA, Rank intervals, the Index score, and the frequency distribution of the unduplicated records on the file with these scores. The final column gives the cumulative percent of the population for each score.

ACT to SAT Concordance

The calculation of a concordance of SAT scores to ACT scores was done very similarly to the calculations for the GPA to Rank concordances. The unduplicated headcount file from all twelve institutions was used. Records were selected for students reporting both ACT and SAT scores, 6,762 records, and cumulative frequency distributions were computed. If ACT scores were computed by averaging ACT subtest scores, then the ACT score was rounded to the nearest whole number.

There is, however, a potentially serious problem with this data. The UAF data provides for the collection of subtest scores for both the ACT and SAT tests in case future analyses require this additional information. Where only the subtest scores are reported, the ACT composite is computed as the average of the four ACT subtests and the SAT total is computed as the sum of the two SAT subtests. The

problem arises for students that take either the ACT or the SAT multiple times. It is common for admission offices to use the highest score from multiple administrations of a standardized test, and the instructions for the UAF indicated that was the correct procedure to use in reporting.

The Commission staff assumed that all of the reported subtest scores would be reported from the same test administration. Some schools however, have a standard practice of using the highest individual subtest scores, possibly from multiple test administrations, and these were the scores that they reported. In this case, it is not possible to compute an actual composite score since the reported subtest scores may not be from the same test administration. Other institutions reported all data from the same test administration. The average standardized test scores for an institution reporting maximum subtest scores will be higher than the average that would be computed from single administration scores. In future years, all institutions have agreed to report the data from single administrations of the test so that all reported subtest scores will be from the test administration with the highest overall score. The effect, if any, of this data reporting change will have to be very carefully monitored.

The correlation between ACT and SAT scores in this data set was quite high, .86. The concordance is shown in Table F. This table is very similar to Table D. There is a range of SAT scores equivalent to each ACT score. A plot of the cumulative frequency distributions is given in Figure B.

An alternative computation method for the ACT to SAT concordance was investigated before the concordance in Table F was finalized. Dr. James Maxey of the American College Testing office in Iowa City volunteered their resources to construct the concordance. They used a fitting procedure utilizing an analytical method called cubic splines. The table from that concordance and the one illustrated in Table F, however, were very similar, especially in the mid range where most of the data lies. While the ACT methodology may be slightly more accurate, there were several advantages to staying with the simpler methodology:

- 1) the concordances in Tables D and F are all done using Lotus 123; by using that methodology, the analysis can be done as often as necessary without having to generate a tape and mailing it to Iowa City; also, in future iterations, it might become necessary to pay them for the analysis,
- 2) in addition, the Lotus 123 files can be shared with institutional and governing board staffs, so they will be able to duplicate the tables, and finally,
- 3) since the concordances for GPA and Rank were done with Lotus 123, it was decided that it would be better to use the same methodology for both scales.

If a version of the cubic spline methodology is developed in the future that could be run by the Commission staff, then it could be used as an alternative calculation method for statewide concordances.

Standardized Test Score Index

The calculation of the Standardized Test Score Index (ST Index) is computed, similarly to the HS Index, by calculating an ACT equivalent score for every student reporting an SAT score. For students with both scores, the maximum between their ACT and the ACT equivalent score is used. The cumulative frequency distribution of these scores is computed and equivalenced to a T distribution. This calculation and the resulting look up table is given in Table G. The cumulative frequency distribution of the 24,610 students on the fall 1985 file is also shown in Table G, as well as the cumulative percent distributions.

CCHE Admission Index

The CCHE Admission Index, finally, is computed by adding together the HS Index and ST Index scores for a student. The mean and median of the Admission Index is 100. The HS and ST Indices have a 0.5 correlation with each other and the standard deviation of the Admission Index is 16.67.

The Admission Index score for each student on the database can be computed by looking up the index scores in Tables F and H and summing them. Table H shows the distribution of these sums in a matrix format. This matrix shows the "contour lines" for each Admission Index score. The matrix in Table H also illustrates the compensatory nature of the admission index. For example, a score of 100 can be arrived at with an ACT of 11 and a HS GPA of 4.0 at one extreme, or with an ACT of 34 and a HS GPA of 1.1 at the other extreme.

The distribution of the Admission Index score on the fall 1985 data is given in Table I. Table I also displays equivalent Rank and ACT values for each score. This table illustrates an attempt to tie different levels of the Admission Index to the student population. Since Rank is directly related to the high school population, it is chosen for the HS Index measure. Similarly, since the ACT test is the dominant test for Colorado high school graduates, it is chosen as the measure for the ST Index. The distribution of the ACT test scores for 1985 Colorado high school graduates is known. The ACT score from that distribution, corresponding to each rank, is then used. For example, students with a rank of 75 are in the upper 25 percent of their class. The corresponding ACT score for the upper 25 percent of the ACT distribution is 24 and the corresponding Admission Index score is 102; there were 13,221 students in the fall 1985 data with a score of 102 or higher.

TABLE A
FILE FORMAT FOR THE UNDERGRADUATE APPLICANT FILE

MODULE	FIELD NUMBER	FIELD NAME	LEN	START COL	END COL
IDENT	1	Record Type 1	1	1	
	2	Institution Code	4	2	5
	3	Report Period3	6	8	
	4	Student Identif. Number	9	9	17
DEMO	5	Sex	1	18	18
	6	Date of Birth 6	19	24	
	7	Ethnicity	1	25	25
ENROLL	8	Student Level2	26	27	
	9	Tuition Classification	1	28	28
	10	Major	6	29	34
	11	Major Sequence No.	2	35	36
DETAIL	12	Registration Status	1	37	37
	13	State	2	38	39
	14	County	3	40	42
	15	Year of HS Graduation	2	43	44
	16	Admission Status	1	45	45
	17	Program Type Indicator	1	46	46
	18	Internat'l Transcript	1	47	47
	19	H.S. Code	6	48	53
	20	H.S. GPA--Transcript	3	54	56
	21	H.S. GPA--Academic	3	57	59
	22	H.S. Rank	3	60	62
	23	ACT: Composite	4	63	66
	24	ACT: English	2	67	68
	25	ACT: Math	2	69	70
	26	ACT: Natural Science	2	71	72
	27	ACT: Social Science	2	73	74
	28	SAT: Verbal	3	75	77
	29	SAT: Math	3	78	80
	30	GED Score	2	81	82
	31	Date of Last Attendance	4	83	86
	32	Transfer GPA	3	87	89
	33	Transfer GPA--Crdt Hr.	3	90	92
	34	Level Prior to Transfer	2	93	94
	35	Degree Prior to Trans	1	95	95
	36	Colo Guaranteed Trans	1	96	96
	37	Trans. Inst. Code	4	97	100
	38	Transfer Instit Name	28	101	128

TABLE B
DEFINITIONS OF UAF DATA FIELDS

Record Type	Code that identifies record as part of the Undergraduate Applicant File
Institution Code	Code that uniquely identifies the reporting institution
Report Period	Code that identifies the term, either summer, fall, winter, or spring
Student Identification Number	Code that uniquely identifies each student reported, usually the social security number
Sex	Code to indicate if student is male or female
Date of Birth	Birth date for the student, used to determine the student's age
Ethnicity	Code to indicate the student's self-reported ethnicity, either non-resident alien, black, Hispanic, Asian, American Indian, white, or unreported
Student Level	Code to indicate the enrollment level of the student, for example, freshmen, sophomore, junior, senior, special student, or unclassified
Tuition Classification	Code to indicate if the student is classified as an in-state or out-of-state student for tuition purposes
Major	A six-digit code that identifies the CCHE approved degree program that the student is applying for, the code may also indicate an undeclared major
Major Sequence No.	A CCHE assigned code that is occasionally needed to distinguish between approved majors at an institution
Registration Status	Code to indicate if the student is applying as a first-time student or as a transfer student
State	The state the student was living in before applying to the institution
County	If the student lived in Colorado, the county the student was living in before applying to the institution

TABLE B
DEFINITIONS OF UAF DATA FIELDS
(Continued)

Year of HS Graduation	The year that the student graduated from high school, the code also indicates if the student never graduated or has a GED
Admission Status	Code that indicates how far the student got in the application process, for example, applied but was not accepted, accepted but never enrolled, or enrolled
Program Type Indicator	Code that indicates if the student applied or was accepted into a four-year or two-year program (on the UAF, this applies only to Adams State College and Mesa State College); or if the student is in a summer only program, or an off-campus degree program
International Transcript	Code, to be collected for the first time in fall 1986, that indicates if the student attended high school or college in a foreign country and that the transcripts for that student are not equivalent to an American transcript
H.S. Code	Code assigned by ACT for the high school last attended; if the student attended high school in a state other than Colorado, then the first two digits of the code are used to indicate the state of the high school
H.S. GPA--Transcript	The high school grade point average reported on the student's high school transcript
H.S. GPA--Academic	An academic grade point average, calculated from the academic courses taken in high school; this field is currently used only by Colorado State University
H.S. Rank	The high school rank reported on the student's transcript
ACT: Composite	The composite score from the ACT if the student took the test; if the test was taken multiple times, then the highest score can be reported
ACT: English ACT: Math ACT: Natural Science ACT: Social Science	The ACT subtest scores, the reported scores must all be from the same administration of the test

TABLE B
DEFINITIONS OF UAF DATA FIELDS
(Continued)

SAT: Verbal SAT: Math	The verbal and math scores from the SAT if the student took the test; if the test was taken multiple times, then the highest score can be reported; both reported scores must be from the same administration of the test
GED Score	The GED score if the student took the test, collected for the first time in fall 1986
Date of Last Attendance	The date of last college attendance if the student has previously attended a college
Transfer GPA	The cumulative grade point average in previous college courses
Transfer GPA -- Credit Hour	The number of credit hours of college courses previously completed
Level Prior to Transfer	The student level of the student at the college previously attended
Degree Prior to Transfer	The highest degree level completed prior to transfer, for example, an associate degree
Colorado Guaranteed Transfer	Code to indicate if the student transferred under the conditions of a CCHE approved guaranteed transfer program
Trans. Inst. Code	A code identifying the postsecondary institution previously attended; for students moving from a two-year program to a four-year program at ASC or MC, or for students applying for degree status after previously attending the same institution as a special student or extended studies student, this code would be identical to the receiving institution's code
Transfer Institution Name	If the institutional code for the sending institution is not known, then the name of the sending institution is reported

TABLE C
VALID STUDENT TYPES
BY REGISTRATION STATUS AND STUDENT LEVEL
FOR THE UNDERGRADUATE APPLICANT FILE

		REGISTRATION STATUS		
		FIRST-TIME	FIRST-TIME OTHER	TRANSFER
		1	2	3
STUDENT LEVEL	11 FRESHMAN	first-time freshmen		t
	12	*****	*****	r
	13 2ND YEAR THRU 4TH YEAR	*****	*****	a
	14	*****	*****	n
				s
				f
	15 UNCLASSIFIED			e
				r
	19 SPECIAL W/O BACHELOR'S	special students *****		

The blocked out cells in the matrix represent illegal combinations of Student Level and Registration Status.

TABLE D
GPA/RANK CONVERSION TABLE FROM FALL, 1985 DATA

HS GPA			RANK EQUIVALENTS TO GPA VALUES			
SCORES	FREQ	CUM FREQ	LOW	HIGH	FREQ	CUM FREQ
0.1	0	0	0	0	0	0
0.3	0	0	0	0	0	0
0.4	0	0	0	0	0	0
0.5	0	0	0	0	0	0
0.6	0	0	0	0	0	0
0.7	0	0	0	0	0	0
0.8	0	0	0	0	0	0
0.9	0	0	0	0	0	0
1.0	0	0	0	0	0	0
1.1	18	18	1	1	19	19
1.2	13	31	2	2	19	38
1.3	30	61	3	3	26	64
1.4	39	100	4	4	30	94
1.5	71	171	5	6	76	170
1.6	86	257	7	8	81	251
1.7	128	385	9	10	126	377
1.8	219	604	11	14	250	627
1.9	244	848	15	17	198	825
2.0	359	1,207	18	21	406	1,231
2.1	444	1,651	22	26	455	1,686
2.2	497	2,148	27	30	550	2,236
2.3	771	2,919	31	36	681	2,917
2.4	706	3,625	37	40	686	3,603
2.5	811	4,436	41	46	791	4,394
2.6	914	5,350	47	51	989	5,383
2.7	909	6,259	52	56	875	6,258
2.8	1,170	7,429	57	61	1,236	7,494
2.9	1,062	8,491	62	66	1,002	8,496
3.0	1,168	9,659	67	70	1,183	9,679
3.1	1,115	10,774	71	75	1,125	10,804
3.2	1,015	11,789	76	79	987	11,791
3.3	1,153	12,942	80	82	1,088	12,879
3.4	1,004	13,946	83	86	1,145	14,024
3.5	935	14,881	87	89	849	14,873
3.6	880	15,761	90	91	895	15,768
3.7	705	16,466	92	93	645	16,413
3.8	876	17,342	94	96	985	17,398
3.9	681	18,023	97	98	699	18,097
4.0	<u>592</u>	18,615	99	100	<u>518</u>	18,615
18,615			18,615			

TABLE E
HIGH SCHOOL PERFORMANCE TABLE

MAX HS DISTRIBUTION

GPA	RANK	RANK	HS-INDEX	FREQ	CUM FREQ	CUM %
1.1	1	1	17.0	8	8	0.02%
1.2	2	2	18.0	14	22	0.06%
1.3	3	3	19.0	14	36	0.11%
1.4	4	4	21.0	30	66	0.20%
1.5	5	6	23.0	48	114	0.35%
1.6	7	8	25.0	68	182	0.58%
1.7	9	10	27.0	119	301	0.95%
1.8	11	14	29.0	233	534	1.64%
1.9	15	17	30.0	221	755	2.54%
2.0	18	21	32.0	387	1,142	3.74%
2.1	22	26	34.0	489	1,631	5.46%
2.2	27	30	36.0	600	2,231	7.61%
2.3	31	36	38.0	924	3,155	10.61%
2.4	37	40	39.0	735	3,890	13.88%
2.5	41	46	41.0	1,127	5,017	17.54%
2.6	47	51	42.0	1,165	6,182	22.06%
2.7	52	56	44.0	1,137	7,319	26.59%
2.8	57	61	45.0	1,590	8,909	31.97%
2.9	62	66	47.0	1,362	10,271	37.78%
3.0	67	70	48.0	1,560	11,831	43.54%
3.1	71	75	50.0	1,512	13,343	49.59%
3.2	76	79	51.0	1,557	14,900	55.63%
3.3	80	82	53.0	1,583	16,483	61.82%
3.4	83	86	55.0	1,520	18,003	67.93%
3.5	87	89	56.0	1,305	19,308	73.49%
3.6	90	91	58.0	1,334	20,642	78.69%
3.7	92	93	60.0	1,049	21,691	83.39%
3.8	94	96	62.0	1,561	23,252	88.53%
3.9	97	98	65.0	1,140	24,392	93.85%
4.0	99	100	68.0	<u>992</u>	5,384	98.05%

25,384

TABLE F
ACT/SAT CONVERSION TABLE FROM FALL, 1985 DATA

ACT			SAT EQUIVALENTS TO ACT VALUES			
SCORES	FREQ	CUM FREQ	LOW	HIGH	FREQ	CUM FREQ
1	0	0				
2	0	0				
3	0	0				
4	0	0				
5	0	0				
6	2	2	400	500	2	2
7	5	7	510	520	5	7
8	8	15	530	550	8	15
9	6	21	560	560	2	17
10	23	44	570	600	28	45
11	23	67	610	610	18	63
12	43	110	620	640	44	107
13	58	168	650	660	50	157
14	72	240	670	690	76	233
15	95	335	700	720	104	337
16	127	462	730	750	123	460
17	186	648	760	780	162	622
18	213	861	790	810	212	834
19	268	1,129	820	850	336	1,170
20	335	1,464	860	880	315	1,485
21	387	1,851	890	910	357	1,842
22	432	2,283	920	940	388	2,230
23	534	2,817	950	980	536	2,766
24	653	3,470	990	1,020	627	3,393
25	634	4,104	1,030	1,070	753	4,146
26	584	4,688	1,080	1,110	577	4,723
27	580	5,268	1,120	1,150	523	5,246
28	510	5,778	1,160	1,200	542	5,788
29	404	6,182	1,210	1,250	386	6,174
30	283	6,465	1,260	1,310	297	6,471
31	173	6,638	1,320	1,350	157	6,628
32	92	6,730	1,360	1,430	105	6,733
33	25	6,755	1,440	1,470	23	6,756
34	7	6,762	1,480	1,490	6	6,762
35	0	6,762	1,500	1,600	0	6,762
36	<u>0</u>	6,762			<u> </u>	
	6,762				6,762	

TABLE G
STANDARDIZED TEST SCORE TABLE

ACT	LOW SAT	HIGH SAT	ST-INDEX	<u>MAX ST DISTRIBUTION</u>		
				FREQ	CUM FREQ	CUM %
1 to 6	400	500	23.0	94	94	0.38%
7	510	520	26.0	120	214	0.87%
8	530	550	27.0	131	345	1.14%
9	560	560	29.0	191	536	1.79%
10	570	600	31.0	253	789	2.69%
11	610	610	32.0	306	1,095	3.83%
12	620	640	34.0	428	1,523	5.32%
13	650	660	35.0	502	2,025	7.21%
14	670	690	37.0	591	2,616	9.43%
15	700	720	38/0	648	3,264	11.95%
16	730	750	40.0	766	4,030	14.82%
17	760	780	41.0	857	4,887	18.12%
18	790	810	42.0	1,079	5,966	22.05%
19	820	850	44.0	1,257	7,223	26.80%
20	860	880	45.0	1,318	8,541	32.03%
21	890	910	47.0	1,409	8,950	37.57%
22	920	940	48.0	1,503	11,453	43.48%
23	950	980	50.0	1,791	13,244	50.18%
24	990	1020	52.0	1,910	15,154	57.70%
25	1030	1070	54.0	2,129	17,283	65.90%
26	1080	1110	56.0	1,819	19,102	73.92%
27	1120	1150	59.0	1,538	20,640	80.74%
28	1160	1200	61.0	1,429	22,069	86.77%
29	1210	1250	64.0	1,049	23,118	91.81%
30	1260	1310	67.0	756	23,874	95.47%
31	1320	1350	70.0	394	24,268	97.81%
32	1360	1430	74.0	258	24,526	99.13%
33	1440	1470	79.0	66	24,592	99.79%
34	1480	1490	83.0	10	24,602	99.95%
35 to 36	1500	1600	86.0	<u>8</u>	24,610	99.98%

24,610

TABLE H
MATRIX OF ADMISSION INDEX VALUES

This table is not available on the Web
(To obtain a copy, call CCHE)

Concordance Table
for
Converting Composite Scores from the Current ACT Assessment
into
Equivalent Composite Scores on the Enhanced ACT Assessment

The American College Testing Program has provided a concordance table that can be used to convert ACT scores from the original ACT assessment into equivalent scores on the new enhanced ACT assessment. This concordance table was used in preparing the new admissions index matrix. Some institutions may want to convert all their ACT scores into enhanced ACT equivalents. The concordance table that should be used if such a conversion is done is given below:

Composite score on current ACT Assessment	Composite score on Enhanced ACT Assessment
1	3
2	5
3	7
4	9
5	11
6	11
7	12
8	13
9	14
10	14
11	15
12	16
13	17
14	17
15	18
16	19
17	19
18	20
19	21
20	21
21	22
22	23
23	24
24	25
25	26
26	27
27	28
28	29
29	30
30	31
31	32
32	33
33	34
34	35
35	36

TABLE I
DISTRIBUTION OF ADMISSION INDEX SCORES FOR FALL 1985

UPPER % BY RANK	ACT SCORE AT CORR % FOR CO HS SENIOR	EQUIV INDEX	PERCENT OF TOTAL POOL	NO OF APPLICANTS AT THIS LEVEL OR ABOVE
1%	31	138	99%	322
2%	30	132	98%	991
3%	29	129	96%	1,483
4%	29	126	94%	2,101
5%	28	123	91%	2,795
6%	28	123	91%	2,795
7%	27	119	87%	4,065
8%	27	119	87%	4,065
9%	27	117	84%	4,788
10%	27	117	84%	4,788
11%	26	112	77%	7,284
12%	26	112	77%	7,284
13%	26	112	77%	7,284
14%	26	111	74%	7,705
15%	25	109	70%	8,970
16%	25	109	70%	8,970
17%	25	109	70%	8,970
18%	25	107	66%	10,085
19%	25	107	66%	10,085
20%	24	105	62%	11,298
21%	24	103	58%	12,627
22%	24	103	58%	12,627
23%	24	103	58%	12,627
24%	24	103	58%	12,627
25%	24	102	55%	13,221
26%	23	100	50%	14,562
27%	23	100	50%	14,562
28%	23	100	50%	14,562
29%	23	100	50%	14,562
30%	23	98	46%	15,838
31%	23	98	45%	15,838
32%	22	96	41%	16,979
33%	22	96	41%	16,979
34%	22	95	39%	17,736
35%	22	95	39%	17,736
36%	22	95	39%	17,736
37%	22	95	39%	17,736
38%	21	94	37%	18,293
39%	21	92	33%	19,576
40%	21	92	33%	19,576
41%	21	92	33%	19,576
42%	21	92	33%	19,576

TABLE I
(continued)
DISTRIBUTION OF ADMISSION INDEX SCORES FOR FALL 1985

UPPER % BY RANK	ACT SCORE AT CORR % FOR CO HS SENIOR	EQUIV INDEX	PERCENT OF TOTAL POOL	NO OF APPLICANTS AT THIS LEVEL OR ABOVE
43%	21	92	33%	19,576
44%	20	89	27%	21,247
45%	20	89	27%	21,247
46%	20	89	27%	21,247
47%	20	89	27%	21,247
48%	20	87	22%	22,164
49%	20	87	22%	22,164
50%	19	86	21%	22,713
51%	19	86	21%	22,713
52%	19	86	21%	22,713
53%	19	86	21%	22,713
54%	19	85	19%	23,199
55%	19	85	19%	23,199
56%	19	85	10%	23,199
57%	18	83	16%	24,014
58%	18	83	16%	24,014
59%	18	83	16%	24,104
60%	18	81	13%	24,768
61%	18	81	13%	24,768
62%	17	80	12%	25,073
63%	17	80	12%	25,073
64%	17	79	11%	25,439
65%	17	79	11%	25,439
66%	17	79	11%	25,439
67%	17	79	1%	25,439
68%	16	78	9%	25,714
69%	16	76	8%	26,263
70%	16	76	8%	26,263
71%	16	76	8%	26,263
72%	16	76	8%	26,263
73%	15	74	6%	26,643
74%	15	72	4%	27,053
75%	15	72	4%	27,053
76%	15	72	4%	27,053
77%	15	72	4%	27,053
78%	14	69	3%	27,439
79%	14	69	3%	27,439
80%	14	69	3%	27,439
81%	14	69	3%	27,439
82%	13	65	2%	27,787
83%	13	65	2%	27,787

TABLE I
(continued)
DISTRIBUTION OF ADMISSION INDEX SCORES FOR FALL 1985

UPPER % BY RANK	ACT SCORE AT CORR % FOR CO HS SENIOR	EQUIV INDEX	PERCENT OF TOTAL POOL	NO OF APPLICANTS AT THIS LEVEL OR ABOVE
84%	13	65	2%	27,787
85%	13	65	2%	27,787
86%	12	63	1%	27,905
87%	12	63	1%	27,905
88%	12	63	1%	27,905
89%	12	61	1%	28,002
90%	11	59	0%	28,058
91%	11	57	0%	28,087
92%	11	57	0%	28,087
93%	10	54	0%	28,131
94%	10	54	0%	28,131
95%	9	50	0%	28,148
96%	9	48	0%	28,153
97%	8	46	0%	28,154
98%	7	44	0%	28,157
99%	6	40	0%	28,159
100%	6	40	0%	28,159

FIGURE A
HIGH SCHOOL GPA VERSUS EQUIVALENT RANKS

This table is not available on the Web
(To obtain a copy, call CCHE)

FIGURE B
ACT SCORES VERSUS EQUIVALENT SAT SCORES

This table is not available on the Web
(To obtain a copy, call CCHE)